

Independent Claims 1 and 34 have been amended to read as not being limited to requiring the logic to convert the message to a format suitable for display on TV screen within the Television Messaging Gateway (TVMG), but more broadly that such logic, being inherent to the invention's capacity to display messages on television, may be located in many places within the system, as well as in the TVMG. Example support for such construction is found in page 9, ll. 4-5, ("Alternatively, the television messaging gateway logic may be fully or partially implemented within the set-top box.") and in other places in the specifications as filed.

Applicant also notes that other portions of the TVMG may also be distributed throughout the environment in which the invention is designed to operate, as described in the preamble for independent claim 1 for example. Thus, similarly, Claims 9, 13, 17, 18 and 34 were amended to increase readability, and to more broadly claim the structure and element placement within the system. Notably, claims 17 and 18 are further amended to more broadly and clearly show that a remote control device is not a necessary claimed element of the system, but rather that the system claimed in those claims is adapted to receive, directly or indirectly, input from such a device.

Claims 10 and 28 were amended to more particularly claim the novel embodiment of applicant's invention being supported by any type of DSL network serving as the upstream or downstream network. Example of support for that embodiment can be found in page 8, ll. 5-8 of the application ("The messages can be broadcast over any type of downstream network, such as cable-TV or satellite broadcasting systems (DBS) or xDSL, or any other network that is capable of carrying analog or digital video signals to be processed and displayed by a television or similar display device."). Applicant notes that xDSL is a common engineering term to relate to a family of DSL products.

Claims 35, 37, 41 have been amended, and additional claims added, to more positively and broadly claim yet other novel features of applicants' invention, such as the feature that allows an outgoing message to be easily generated by embedding user voice or sound within the outgoing message. Yet another alternative advantage of the invention newly claimed or

broadened by those claims, is allowing entry of such voice or sound using a telephone, as a device familiar and readily available to most users. These claims are broadly supported in the specifications, for example in page 18, ll. 31 ("...a new screen is generated, asking the subscriber to either record a voice message as a reply, ...") or in page 19, ll. 9-11 ("in step 1330 the subscriber uses a microphone or a handset to record a voice file, using the voice recording capabilities of the TV messaging gateway's telephony card, or similar capability e.g. in the set-top box."), page 8 ll. 20, by Fig. 12, and many other places in the specifications.

Claim 35 more broadly claim claims the use of a telephone as an input device.

Claim 24 was mistakenly dependent on claim 23, due to an inadvertent typo. Claim 24 was corrected to depend on claim 2. Similarly, claim 16 now depends on claim 1.

Other added claims more particularly claim other aspects and advantages or embodiments of applicants' invention.

Applicant respectfully requests that the above amendment be entered into record and that the application be so amended.

If the Examiner believes that the prosecution of this application may be furthered through a personal or a telephone interview, the Examiner is kindly requested to contact the undersigned agent at (207) 799-9733.

Respectfully Submitted



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What is claimed is:

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1. In a television broadcast system having a central location connected to a downstream network constructed to carry video signals and selectively distribute said video signals to a plurality of addressable terminals connected thereto, wherein at least one of said addressable terminals is constructed to selectively display said video signal on a television screen, operating in conjunction with a messaging server constructed to store and forward messages, and an upstream network capable of delivering user input signals from a remote location to said central location, an apparatus for selecting and displaying multi-media messages, comprising:
 - 10 a television messaging gateway having:
 - a message control interface coupled to said messaging server for receiving at least one message therefrom, said message having address information associated therewith, to associate said message with at least one user;
 - a video output module coupled to said downstream network for generating video signals corresponding to said message, for display on a television set coupled to said addressable terminal; and,
 - 15 logic to direct said message between said message receiving interface and said video output module.
- 20 2. An apparatus for selecting and displaying multi-media messages as in claim 1 wherein said gateway further comprises an input device interface connected to said upstream network for receiving user input signals.
3. An apparatus for selecting and displaying multi-media messages as in claim 2 wherein said logic is further constructed to interactively respond to said user input signals, and selectively direct messages to an addressable terminal associated with a user.
- 25 4. An apparatus for selecting and displaying multi-media messages as in claim 2 wherein said television messaging gateway further comprises storage means to store a plurality of said messages and the addressing information associated therewith.
5. An apparatus for selecting and displaying multi-media messages as in claim 2 wherein said user input signals include a password, before messages corresponding with said user are fed into said downstream network.
- 30 6. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said television messaging gateway further comprises a user interface module, responsive to user input signals and constructed to cause generation of video signals to display data corresponding to the type and number of

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messages directed to a user, and to facilitate user selection of messages to be directed to said addressable terminal.

7. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said input device interface comprises a telephony interface.

5 8. The apparatus for selecting and displaying multi-media messages of claim 7 wherein said user input signals are inputted using a telephone.

9. The apparatus for selecting and displaying multi-media messages of claim 2 also comprising receiver means to receive user generated messages.

10. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said upstream network is a telephony network, a bi-directional television distribution network, a wireless network, a DSL network, a dedicated wire network and a combination thereof.

11. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said user input signals are telephony input, touch tone signals input, voice input, remote control device input, pointing device input, keyboard input or a combination thereof.

15 12. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said upstream network is a bi-directional television distribution network and wherein said addressable terminal is adapted to send user input signals to said television messaging gateway via said upstream network.

13. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said input device interface further comprises or is coupled to a speech recognition module and wherein said user input signals are voice signals.

20 14. The apparatus for selecting and displaying multi-media messages of claim 13 wherein said addressable terminal is adapted to receive user voice input commands, and transmit said commands to said input device interface.

15. The apparatus for selecting and displaying multi-media messages of claim 14 wherein said addressable terminal is further adapted to translate voice commands into tokens, and wherein said tokens being transmitted to said input device interface.

16. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said television messaging gateway is coupled to an IP based network for receiving messages and user input therethrough.

25 17. The apparatus of claim 2 wherein said user input device interface is adapted to receive input from a remote control unit in communication with said terminal.

18. The apparatus of claim 17 wherein said remote control unit further comprises a microphone and adapted to

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transmit sound signals to said terminal.

20. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said television messaging gateway further comprises at least a local module and a centralized module, and wherein said local module is implemented in at least a portion of said addressable terminal.

5 21. The apparatus for selecting and displaying multi-media messages of claim 20 wherein said local module further comprises:
a reception module for receiving at least one message from said centralized module;
a displaying module for displaying said message on said television set; and,
an input reception module for receiving user input.

10 22. The apparatus for selecting and displaying multi-media messages of claim 20 wherein said addressable terminal further comprises a message storage device and wherein said local module is adapted to store messages in said message storage device.

23. An apparatus for selecting and displaying multi-media messages as in claim 1 wherein said logic is constructed to direct said message to an addressable terminal associated with said address information.

15 24. An apparatus for selecting and displaying multi-media messages as in claim 2 wherein user input signals are used to identify and select an addressable terminal to direct messages to.

25. An apparatus for selecting and displaying multi media messages as in claim 1 wherein said logic is further constructed to display a list of messages available for a specific user, to enable said user to select at least one message of said list for display.

20 26. An apparatus for selecting and displaying multi-media messages as in claim 1 wherein said television messaging gateway further comprises means for notification of receipt of a message.

27. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said messages are of a type selected from audio messages, video messages, fax messages, text messages, multi-media messages, and e-mail messages.

25 28. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said downstream network is a cable television network, a satellite television network, a terrestrial video distribution network, a radio frequency video distribution network, a cellular network, a DSL network, a hybrid network, direct cable connection, or a combination thereof

29. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said television messaging gateway utilizes a television speaker as an output device.

30 30. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said video signals comprises digital video signals and wherein said downstream network is constructed to transmit digital video signals and addressing information to address selected signals to a selected addressable terminal.

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31. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said messaging server is also adapted to receive e-mail messages.

32. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said television messaging gateway is integral to said messaging server.

5 33. The apparatus for selecting and displaying multi-media messages of claim 1 wherein said television messaging gateway is located remotely from said messaging server.

34. In a television broadcast system having a central location connected to a downstream network constructed to carry video signals and selectively distribute said video signals to a plurality of addressable terminals connected thereto, wherein at least one of said addressable terminals is constructed to selectively display 10 said video signal on a television screen, operating in conjunction with a messaging server constructed to store and forward messages, and an upstream network capable of delivering user input signals from a remote location to said central location, an apparatus for selecting and displaying multi-media messages comprising:

a television messaging gateway having:

15 a message receiving interface coupled to said messaging server for receiving at least one message therefrom, said message having address information associated therewith, to associate said message with a user;

a video output module coupled to said downstream network for generating video signals corresponding to said message, for display on a television set coupled to said addressable terminal;

20 logic to direct messages between said message receiving interface and said video output module; an input device interface connected to said upstream network for receiving user input signals;

Wherein said television messaging gateway is adapted to communicate with a database to correlate said addressing information with a specific user and addressable terminal;

and,

25 wherein said messages are interactively displayed on a television screen coupled to said addressable terminal in response to user input signals entered by a user input device.

35. The apparatus for selecting and displaying multi-media messages of claim 34 wherein said input device interface comprises a telephony network and said input device comprises a telephone.

36. The apparatus for selecting and displaying multi-media messages of claim 34 wherein said upstream 30 network and said downstream network comprises a bi-directional television distribution network, and wherein said input device interface is coupled to said bi-directional network for receiving user input signals therethrough.

37. The apparatus for selecting and displaying multi-media messages of claim 34 wherein said user input signals correspond to human voice commands.

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38. A method for remote viewing of selected messages at a user remote receiving location comprising the steps of:

coupling a television messaging gateway to a television set;
coupling at least one messaging server to the television messaging gateway; and
causing said television messaging gateway to provide messages received in said messaging server to said television set in a format suitable for audio-visual display thereon.

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39. The method according to claim 38, wherein said step of causing includes inputting user commands to the gateway.

40. The method according to claim 38, further including the step of displaying at least a portion of said 10 messages using video generation techniques.

41. The method according to claim 38, wherein said messaging server is an e-mail server, and further comprising the steps of creating and sending an e-mail message via said television messaging gateway, said message having a recording of a user voice embedded therein.

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15 50. A method for selecting and displaying multi-media messages comprising the steps of:

receiving messages from a telecom network;
storing said messages in a unified messaging storage;
coupling said unified messaging storage to a television messaging gateway; and,
selectively outputting said messages via said messaging gateway to a television set.

20 51. A computer readable media containing software that when executed by a computer will cause said computer to substantially perform as the television messaging server of claim 1.

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53. The apparatus for selecting and displaying multi-media messages of claim 2 wherein said gateway is adapted to receive a user voice, and embed said user voice in an outgoing message.

25 54. The apparatus for selecting and displaying multi-media messages of claim 53 adapted to receive said user voice from a telephone.

55. An apparatus for selecting and displaying multi-media messages adapted to operate in conjunction with a television distribution system means, a downstream network means and upstream network means, and a messaging server, the apparatus comprises:

30 a television messaging gateway coupled to said television distribution system, said gateway comprising:
an input device interface means for receiving input signals;

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a message control interface means for receiving messages from said messaging server;
an output module coupled to said television distributing system, for generating signals
corresponding with said message, for distributing said signals to terminal means coupled to said
television distribution system for display on a television coupled thereto.

- 5 56. The apparatus for selecting and displaying multi-media messages of claim 55, further comprising means for recording user voice and embedding said recorded voice in an outgoing message.
57. A television messaging gateway adapted to operate in conjunction with a television distribution system having a downstream network constructed to carry signals and distribute said signals to a plurality of terminals connected thereto, wherein at least one of said terminals is constructed to selectively feed an image corresponding to said signal to a television, and operating in conjunction with an upstream network capable of delivering user input signals, said television messaging gateway comprising:
 - an input device interface coupled to said upstream network for receiving input signals;
 - a message control interface responsive to said input signals, for receiving at least one message having address information associated therewith, to associate said message with at least one user;
 - 15 an output module, adapted to generating signals corresponding to said message, coupled to said downstream network, and constructed to deliver said signal to a terminal corresponding to said address information, for display on a television set coupled thereto;
 - wherein said message control interface is constructed to control said message responsive to user input signals entered via a telephone keypad or user voice.
- 20 58. The television messaging gateway of claim 57, wherein said input device interface is constructed to receive input signals comprising human voice and wherein said gateway is adapted to embed the human voice in an outgoing message. 59. The television messaging gateway of claim 57, wherein said input device interface is adapted to receive user signals generated by a telephone.
60. The television messaging gateway of claim 57, wherein,
 - 25 said input device interface is adapted to receive user signals generated by a telephone; and,
 - said input device interface is constructed to receive input signals comprising human voice and wherein said gateway is adapted to embed the human voice in an outgoing message.
61. A computer readable media containing software that when executed by a computer will cause said computer to substantially perform as the television messaging server of claim 57.
- 30 62. The apparatus for selecting and displaying multi-media messages of claim 34 wherein said user input signals correspond to human voice, and the television message gateway is adapted to embed said human voice in an outgoing message.
63. A method for selecting and displaying multi-media messages comprising the steps of:

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Receiving a plurality of messages directed to a particular user;
converting said messages to signals in a television messaging gateway;
selectively transmitting said signals via a downstream network adapted to carry video signals, to a
particular television set associated with said particular user for outputting said message with said

5 television set; and,
entering via said upstream network user outgoing messages comprising user recorded voice
embedded therein.

64. The method of claim 63 wherein said television messaging gateway is characterized by having at least a local module and a centralized module, and wherein said local module is implemented in at least a portion
10 of said addressable terminal.

65. The method of claim 38 wherein said television messaging gateway is characterized by having at least a local module and a centralized module, and wherein said local module is implemented in at least a portion
of said addressable terminal.

66. The method of claim 50 wherein said television messaging gateway is characterized by having at least a local module and a centralized module, and wherein said local module is implemented in at least a portion
15 of said addressable terminal.

67. The apparatus according to claim 34, wherein said television messaging gateway is characterized by having at least a local module and a centralized module, and wherein said local module is implemented in at least a portion of said addressable terminal.

20 68. The apparatus according to claim 34 further adapted to receive a user voice and automatically embed said voice in an outgoing message.

69. The apparatus of claim 391 wherein said user commands are inputted via a telephone.

70. The method according to claim 50, further comprising the step of generating outgoing messages characterized by having a user voice recording embedded therein.

25 71. The method according to claim 50 wherein said step of selectively outputting is performed responsive to user input entered via a telephone.

72. The method according to claim 50 further comprising the step of generating outgoing messages characterized by having a user voice recording embedded therein, and wherein said step of selectively outputting is performed responsive to user input entered via a telephone.